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ABSTRACT

The Functional Literacy Project of India was initiated in 1967 as part of a joint program, involving several Indian government ministries and United Nations agencies, to train some five million farm families in both literacy and modern agricultural skills at the same time. This report first describes the beginnings of the project and its coordination with agricultural training and radio broadcasts. The bulk of the report discusses the seven evaluations of the project conducted between 1969 and 1977 by various government agencies. The author examines the methods and findings of each evaluation, noting the increasing awareness of the need for effective evaluation procedures, the early establishment of a project evaluation unit, and the consistent finding that the project was slow to respond to evaluation results. In the closing section, the author summarizes the problems of both the project and its evaluations. These include the need for institutional and professional support staff; the lack of interagency coordination; a misplaced emphasis on final, summative evaluation instead of ongoing, formative evaluation; and the need for qualitative as well as quantitative evaluation of literacy projects. (RW)

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The Fundamentals of Educational Planning : Lecture - Discussion Series

No. 67

FUNCTIONAL LITERACY PROJECT OF INDIA 1968-1978
- A DECADE OF EVALUATION -
PROCEDURES, PROBLEMS AND PROSPECTS
by S. N. Saraf

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- A DECADE OF EVALUATION -
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INTRODUCTION

On 20 December 1979, I initiated a panel discussion on evaluation of educational reforms in the annual advanced training course of the International Institute of Educational Planning. I was asked to present a concrete situation in a realistic setting. Without any hesitation I accepted the proposal, as it would not involve consultation of text-books on evaluation but the presentation of what actually happened at the grass-root level - which was nearest to reality.

Having been associated with the Indian Functional Literacy Project in more than one way - as a planner since it started in 1967 up to 1979 and directly as its National Director from 1969-1972 - I thought it an advantage to speak about a decade of its evaluation from 1968-1978, in various forms and with far-reaching results. I had also the advantage of working as Unesco's Chief Technical Adviser to the Functional Literacy Project in Afghanistan from 1972 to 1975 which gave me a wider perspective of the project. The experience was rewarding both for me and the trainees of the Institute. It is in response to the earnest desire of the trainees that a document on the subject of my talk should be made available that I have attempted this paper which contains my observations and their elaboration. The questions asked, comments made and clarifications offered at the end of the presentation were extremely stimulating and, because of their relevance, have been incorporated in the paper.

The Functional Literacy Project of India, one of the eleven projects under the Experimental World Literacy Programme, initiated by Unesco in the sixties, has actually been the pathfinder and forerunner of the National Adult Education Programme (NAEP) recently initiated in India intending to cover 100 million persons with literacy programmes over a period of six to seven years. The evaluation results of the Functional Literacy Project would be relevant to the NAEP as a forewarner especially because of its massiveness. In view of the renewed interest, both at the international and national levels, in the programme of literacy as an important factor in development, the experience of the Indian project can be relevant to other similar programmes in various parts of the world.

This paper has been divided into three parts: Part I presents a brief outline of the Functional Literacy Project of India. Part II, which is quite comprehensive, refers to various evaluation studies of Functional Literacy component of the overall programme carried out at the national level, the

Introduction

procedures adopted by the evaluators and the main findings of the studies under broad headings. Part III presents a synthetic view about the experience of the Functional Literacy Project of India, the relevance of the findings of several evaluation studies, improvements required in evaluation techniques as applied to literacy programmes.

The author would like to take this opportunity of expressing his gratitude to the International Institute for Educational Planning for making it possible for him to collect voluminous material and information on this subject and analysing it in a coherent form.

S.N. Saraf

IIEP
February 15, 1980

SECTION I

FUNCTIONAL LITERACY PROJECT OF INDIA - CONCEPT AND OBJECTIVES

It has to be recognized that there cannot be one omnibus and a standardized method for evaluating various kinds of educational programmes. Since the objectives, processes, inputs and outcomes of various kinds of educational programmes differ considerably, the criteria, the indicators and methodology of evaluation have to be different and reformulated and redesigned, keeping in view the complexity of operations, the extent of coverage, the nature and background of the target population, the time-span of the projects etc. For instance, the tools used and methodology adopted for evaluating literacy programmes as presented in this paper, may be, and are, different from the ones used for evaluating curriculum development or teacher education projects, or, for the matter of fact, any other educational activity.

Project background

An attempt will be made to describe, as accurately as possible, how Functional Literacy Project, an important socio-economic educational reform taken up in the 'sixties', was evaluated in India. For better understanding the situation, it would be necessary to preface the presentation with the background of the Functional Literacy Project in India, which was one of the eleven projects included in the Experimental World Literacy Programme. This kind of preface, highlighting the main background of the Project contours, its objectives, coverage, nature and background of target population administrative structures, would be in order to give an idea as to what kind of procedures and tools were and should be used in the evaluation of such a deconcentrated project/programme.

The origin

The world literacy situation, over the years, had been worsening. During the decade 1950-60, although the percentage of adult illiteracy (over age 15) in the world dropped from 44.3 to 39.3, the number of illiterates increased from 700 million to 735 million. Projections made in 1960 predicted that the number, if not the percentage of adult illiterates, would continue to rise. The number during the decade 1960-70 increased from 735 million to 783 million although the percentage of adult illiterates dropped to 34.2. The awareness of the seriousness of the situation led the Unesco to decide in 1964 (13th Session of the General Conference) to "initiate in 1966 a five-year experimental world literacy programme designed to pave the way for the eventual execution of a world campaign in this field". Soon after the Unesco decision to launch the experimental programme, the Secretary-General

of the U. N. expressed the hope that the experimental programme would make it possible "to provide valuable information on the relationship of literacy with social and economic development; to ensure that the programme will make a considerable impact on economic development during the Development Decade in the countries where projects will be conducted; and to prepare the way for an eventual World Campaign for the Eradication of Mass Illiteracy"¹. The movement got a fillip with the declaration of the Conference of Education Ministers on World Literacy which met in Teheran in 1965 and adopted the Functional Literacy approach. It is in the light of these developments and realization of the U. N. agencies that literacy is an important factor in social and economic development and the firm commitment of several countries of the world, the Experimental World Literacy Programme (E. W. L. P.) was conceived. This Programme was initiated in eleven countries, namely Algeria, Ecuador, Ethiopia, Guinea, India, Iran, Madagascar, Mali, Sudan, Syrian Arab Republic and the United Republic of Tanzania during the "sixties" and continued in "seventies" also. Thus India was one of the countries which participated in the Experimental World Literacy Programme.

The Indian setting: Targets and objectives

India's foremost national priority has been increased food production. The development of new high-yielding varieties of food grains and improved agricultural technology has made this achievable. With the emergence of agricultural revolution, through the High Yielding Varieties' Programme (H. Y. V. P.), increased attention was given to the development of human input which was so vital in raising the agricultural production. To support this programme, a comprehensive educational effort known as the Farmers' Training and Functional Literacy Project was initiated in 100 selected districts out of about 360 districts in the country. This Pilot Project, conceived and initiated in 1967, utilised an integrated approach in selected 100 districts with the Ministry of Agriculture responsible for all agricultural demonstration activities and farmers' training, the Ministry of Education assuming responsibility for establishing Functional Literacy Centres and the Ministry of Information and Broadcasting providing radio support through their farm broadcast units with limited technical assistance from three U. N. agencies, namely U. N. D. P., F. A. O. and Unesco. The target was to cover 5 million farm families in 100 districts of the High Yielding Varieties of foodgrains, in a phased manner under this integrated programme, covering 32 million acres of land. The areas selected were among the most potentially productive in India fully suitable for double and triple cropping. These districts were to receive supplies of high yielding varieties of seed, as well as insecticides and fertilizers, in an effort to realize vast food production increases. The objective, among other things, was that the 5 million farm families living in these areas should understand the need for change, and should apply modern methods of agriculture. Concretely the objective was linkage of production inputs with the technical know-how and skill of the farmer through a planned and organized training programme, supported by Farm Broadcasts and Functional Literacy. It provided for well-designed functional

1. Report of the Secretary-General on the World Campaign for Universal Literacy, New York, N. Y. United Nations, 1964 (A/5830)

Functional literacy project of India - concept and objectives

literacy input for the illiterate farmers engaged in High Yielding Varieties' Programmes to enable them to acquire literacy skills as also agricultural information which could be immediately used by them in their function, namely agriculture. While the total cost of the integrated project was US\$4.3 million, the U.N.D.P. assistance was of the order of US\$0.15 million, i.e. 3.3 per cent of the total expenditure, mostly for equipment, fellowships and a few experts, up to June 1972, i.e. first phase of the project.

The Functional Literacy Project, as an integrated component of the Farmers' Training and Functional Literacy, had also to cover 100 districts by the end of Fourt Plan, i.e. 1973-74, but the target population was to cover only 1 million illiterate adults with functional literacy programme over a period of 10 months or about 350 learning hours to enable them to obtain both literacy and strategic agricultural skills and information of immediate use to themselves and to High Yielding Varieties Programme. The precise objectives of the functional literacy component of the programmes were as under:

- to contribute to the modernisation of agricultural practices
- to enable the farmer to use the physical investment components to the maximum
- to eliminate prejudices and resistance by the farmer to the processes of change in agricultural practices
- to change his attitudes towards socio-economic situations
- to bring him in the orbit of communication so that he can have access to continuing education.

The literacy efforts by the Ministry of Education were organized in direct collaboration with the Ministry of Agriculture in order to assist this Ministry in high priority development work. The project was assisted by the Central Government on a cent per cent basis, on specific items for which model schematic budget was available.

The two components of the integrated Project, namely Farmers' Training and Farm Broadcasting were initiated in 1964-65. The Functional Literacy Project component was introduced in 1967-68 in three districts and expanded to ten districts in 1968-69. The other two components were operating in 50 districts. In 1969-70, 15 additional districts were taken up under the Functional Literacy Project, thus covering a total of 25 districts in all against 60 districts under the Integrated Programme of Farmers Training. Thus, because of the late start, the Functional Literacy Project was lagging behind and the endeavour always used to be to catch up with the other two components which, in a way, caused undue strain on the administrative, professional and technical capacity of the planners and managers of functional literacy component. It also became clear, right from the beginning, that organising illiterates for literacy work - where the immediate benefits could not be seen so clearly, was more difficult a task than to provide training and demonstration facilities and introduce farm broadcasting where motivation was at its highest. Moreover, the Ministries of Agriculture and Information and Broadcasting had developed better administrative structures and technical inputs because of the availability of the infrastructure at the operational level.

SECTION II EVALUATION - PROCEDURES AND FINDINGS

In 1968-69, the principal groups participating in the Functional Literacy Project were illiterate farmers in ten districts. In each district, according to the then schematic budget, there were 60 functional literacy centres, each centre having an average enrolment of 30 participants. Thus, according to the scheme, there were 18,000 illiterate farmers enrolled in 600 centres in 10 districts. The literacy course was approximately of 10 months' duration. While the pressure for carrying out evaluation of the Project was mounting, it was found that hardly any design or tools existed to measure the impact of the Functional Literacy Project. A reference to this and the kind of studies undertaken has been made in an interesting document¹.

Joint evaluation study

The first effort at evaluating the progress and impact of the programme was made in 1969, when a Committee, set up by the Ministry of Agriculture, produced a report² based on an analysis of progress reports, replies to questionnaires and field visits to five districts in the country. Though this could not be termed a real evaluation of the project, in technical parlance, but it provided, within the quickest possible time, a rewarding feedback which helped not only in identifying measures for necessary correctives in the processes and inputs for implementation of the programme, but also made the project authorities conscious of looking for scientific methods and tools for appraisal and evaluation. Some of the findings of the report were that:

- (a) co-ordination was a weak element in a number of project areas; what was required was vertical inter-agency hierarchy with well-defined points of authority and responsibility besides horizontal co-ordination;
- (b) Farmers' discussion groups had remained somewhat inactive and in some cases even non-existent;
- (c) Functional Literacy Programme, due mainly to its use-value to the farmers, had met with satisfactory response.

1. Mathur R. S. "Evaluation of Functional Literacy in India - an Appraisal" Dept. of Adult Education, University of Rajasthan, Jaipur, July 1973.

2. Farmers' Training and Education Programme: Report of the Evaluation Committee; Government of India, Ministry of Food and Agriculture, Community Development and Co-operation, New Delhi, 1969.

Institutionalisation

This quick review indicated, among other things, the need for debureaucratising the Functional Literacy Project which was being implemented solely by the Central Ministry of Education with some technical support from the Department of Adult Education located, at that time, within the National Council for Educational Research and Training (NCERT) which was meant to act as a technical arm of the Ministry of Education mostly for School Education Programmes. It was felt that an educational reform like the Functional Literacy Project required considerable professional and technical inputs rather than a pure administrative approach. Thus the Department of Adult Education, one small and insignificant unit in the NCERT, was converted into a separate and distinct Directorate of Adult Education, and suitably strengthened, to provide necessary support for implementing the Functional Literacy Project and work directly with the Ministry of Education. This was the first step towards institutionalisation and professionalisation of the Project. With this also began the work of systematic evaluation of the project though much valuable time had already been lost.

Quick Survey

Notwithstanding non-availability of refined tools of evaluation a quick survey¹ of the Functional Literacy Project was carried out in early 1970 by the Ministry of Education. This was the second effort at evaluation. At the time of joint evaluation of the Farmers Training and Functional Literacy, referred to above, Functional Literacy component was in operation in ten districts only. A year after this study, the Functional Literacy Project had been extended to a total of 25 districts in 1969-70 and plans had been made to extend it further to a total of 60 districts in 1970-71. Prior to the expansion of the Project, it was thought advisable to have another quick look at the functioning of the Project after a year of the evaluation study undertaken by the Joint Evaluation Team. A Joint Team of Officers of the Ministry of Education, the Directorate of Adult Education, the Ministry of Agriculture and the Directorate of Extension visited the ten districts for a full month. A common frame of reference in the form of a detailed programme for the Quick Survey was drawn up.

Conclusions of the survey

The conclusions of the survey were based on the results of discussions with a cross-section of the functionaries concerned with implementation of the project at the State and district levels. Though no statistical data or scientific evidence with regard to various aspects of functional literacy were available, the conclusions of the Quick Survey were helpful in reformulation of Project objectives and providing necessary technical and professional support. The Quick Survey revealed, among other things, that:

- (a) whenever and wherever inter-departmental co-ordination existed, the programme worked smoothly;
- (b) in only a few States functional reading materials and follow-up literature had been prepared;
- (c) effective supervision of and technical advice to literacy courses was possible in areas where full-time adult education officers were available;
- (d) in certain districts, the functional literacy component of the Project did not receive adequate priority in the programme of farmers' training.

Regional and National Workshops on Functional Literacy

Far from being satisfactory from the point of view of scientific and systematic evaluation, the two reports at the beginning of this Section, indicated the need for continuous evaluation of the project using sophisticated research methodology techniques. Being the first project of this kind in India, with accent on integration of three components of farmers' training, farm broadcasting and functional literacy for the target group of illiterate participants engaged in an agricultural activity in selected districts, tools and procedures for evaluation had to be devised, used and refined during the course of implementation. It was felt that, even though Unesco being responsible, at the international level for stimulating several activities connected with the Experimental World Literacy Programme, had devised a list of indicators and other tools of measurement and evaluation of results, it would not be desirable to adapt them in toto and that national norms and tools of evaluation, having relevance to Indian conditions, should be designed and used. To pool the national experience, four regional Workshops on Functional Literacy were organised in four regions¹ namely, Southern, Western, Northern and Eastern, covering various States/Union Territories during August-December 1970. Incidentally, it was for the first time, that the process of dialogue took place between the Central Government, which had planned the reform and the State Governments, which had to implement the programme.

These regional workshops, discussed in details, the modus operandi for the implementation of the Project and, among other things, made concrete proposals for a comprehensive evaluation of the Project. The four regional workshops were followed by a National Workshop organized at New Delhi from 11th to 19th January 1971 attended by 110 national and international experts. Five groups discussed matters relating to major areas of Functional Literacy Project as indicated below:

- Group A - Orientation and Training
- Group B - Materials, Media and Methods
- Group C - Mass Media, including rôle of Radio in Literacy
- Group D - Research, Experimentation and Evaluation
- Group E - Administration, Organization and Finance

The National Workshop made comprehensive recommendations about evaluation, research and experimentation. The Project authorities had, for the first time, somewhat firm guidelines for mounting a programme of research, experimentalization and evaluation, though, of course, after about three-to-four years of implementation of the programme. What is also more important is that a detailed Handbook on Farmers' Functional Literacy Project, an authentic description of the objectives, methodology, financing, administration, co-ordination, evaluation, research and studies etc. of the Project, emerged from these four Regional and one National Workshop as a result of considerable exchange of ideas and experiences at the national and international level. The Unesco and F. A. O. Experts in

1. India being a vast country, with 22 States and 9 Union Territories, it was felt that organising State-wise workshops would be time-consuming without having adequate returns.

Functional literacy project of India 1968-78

in Farmers' Training, Farm Broadcasting and Functional Literacy attended all the Regional and the National Workshops.

Lucknow Pilot Evaluation

While the preparations for holding regional and national workshops were proceeding, a pilot evaluation study¹, based on scientific methodology, was undertaken towards the end of 1970 in Lucknow - one of the first three districts where the functional literacy programme was started. This was the third effort at evaluation. The specific objectives of the study were to obtain both qualitative and quantitative measurement of the following three aspects:

- (a) the attainment and use of literacy skills
- (b) the impact of the programme on the individual with particular emphasis on changes in agricultural production, and
- (c) the teaching-learning situation

For evaluating the outcomes with reference to specific objectives, existence of bench-mark survey is essential. This had not been done before initiating the project in Lucknow. In the absence of any bench-mark survey, the design had to be ex-post-facto, using experimental and matched control group. The investigation was conducted in four blocks of Lucknow district from October 1970 to January 1971, where the programme had been in operation covering three batches in three years. The sample consisted of twelve experimental villages from four blocks. In each, 20 respondents were randomly selected. Thus there were 240 respondents. They belonged in equal numbers (namely 80) to three distinct batches of functional literacy courses; the first had received training one year earlier than the second; and the second one year earlier than the third. Four villages were selected for control. They were matched on geographic and socio-economic variables. The 80 respondents in these villages were matched in variables of age, occupation and land holdings.

The respondents (experimentals and controls) were administered a comprehensive interview schedule which contained information on demographic factors (age, caste, occupation) as well as socio-economic variables (land holding, level of possessions); status in regard to knowledge, attitudes and adoption of improved practices; exposure to information sources and attitudes to them; and social values. In regard to adoption of improved agricultural practices, the respondents were asked questions on (a) seeds, (b) fertilizers, (c) implements, and (d) insecticides to find out the level of change for both the wheat and the jwar (sorghum) crop. A literacy test was administered. There were two reading test passages containing 25 and 27 words, respectively. A passage was dictated to each respondent to test writing. The respondents were also asked to fill in a simple farm plan. For arithmetic the respondents were asked to do ten exercises.

1. Farmers' Training and Functional Literacy Programme: Pilot Evaluation Study in Lucknow District (non-technical report), Ministry of Education and Social Welfare, Directorate of Adult Education, New Delhi, 1971; and Farmers' Training and Functional Literacy: A Pilot Evaluation Study of Functional Literacy Project in Lucknow District (Technical Report) Directorate of Adult Education, New Delhi, 1973.

The major findings and conclusions of the Pilot Study were as under:

1. Internal Efficiency of Functional Literacy System

All respondents excepting 4 per cent belonged to 15 to 45 years age group, a little over 45 per cent were in the age group 15 to 25. Over 90 per cent belonged to backward and scheduled castes. Farming was the main occupation of 90 per cent of respondents; 22 per cent had land holdings above 5 acres; less than 2 per cent were landless; the rest had less than 5 acres of land. Thus the programme was mainly directed to the small farmers in the active age-group and coming from the comparatively under-privileged section of society.

2. Drop-outs

Only 17.5 per cent dropped out. The reasons for drop-out were numerous but about 79 per cent did not continue because of adverse family circumstances, 48 per cent were too tired in the evenings, 24 per cent were busy and could not spare time, etc.

3. Literacy effects

(i) Reading: Nearly 9 per cent could not read; 10 per cent could read at a speed below 10 words per minute; 21 per cent between 10 and 20 words per minute; and 32 per cent over 30 words per minute; the average comprehension score was about 67 per cent of maximum possible.

(ii) Writing: Only about 80 per cent respondents took the writing test and on an average they wrote 2.87 words per minute. Those who could not take a dictation were asked to transcribe and this the majority could do well.

(iii) Filling a Farm Plan: Nearly 10 per cent could not fill in a farm plan, the rest were able to do so. About 28 per cent did this very well and obtained maximum score.

(iv) Arithmetic: 23 per cent could not solve any exercise; an additional 10 per cent of respondents could solve less than 1/3 correct; about 12 per cent solved all correct. On the whole the respondents appeared to have done better in reading than in writing and poorly in arithmetic. Although data were not analysed to assess the extent of retention of literacy skills, it appeared that retention was high. In fact there is a high probability of the participants continuing the exercise of their literacy skills and thereby raising their level. For the participants who learned literacy in the earlier batches the scores were consistently higher (in reading, writing and arithmetic) than for those who only recently finished their course.

4. Increase in Agricultural Knowledge

In regard to wheat, the mean knowledge score for experimentals was higher than that for controls and the difference was significant at .01 level. Also, the mean knowledge score was higher for those who attended the earlier functional literacy classes than for those who attended subsequent classes. This shows that functional literacy made a positive impact on knowledge of wheat farming; furthermore, respondents made use of time to learn more about wheat after the conclusion of the classes; in regard to jwar (sorghum), there was a significant difference (.01 level) between the mean scores of experimentals and controls. The 't' test showed no significant difference between the mean scores of those who attended classes in the three time series.

5. Adoption of improved agricultural practices

The experimentals fared far better than the controls in regard to awareness, interest, trial and adoption of high yielding variety seeds, fertilizers, implements and insecticides pertaining to both wheat and jwar. The batches which received functional literacy earlier had better scores than those who received training later. Changes in awareness were of a higher order than actual changes in adoption as such.

6. Attitude to functional literacy

The experimentals had a significantly more favourable attitude to adult literacy than the controls. The 't' value was significant at .01 level. As between the experimentals belonging to the three batches, there was no significant difference.

7. Level of possessions

In regard to level of possessions there was a significant difference (at .01 level) between the experimentals and controls. The literates possessed more items of material comfort.

8. Contacts with extension personnel

While nearly 40 per cent of experimentals had contacts with the extension personnel (mainly the village level workers), only 15 per cent of the controls had such contacts.

9. Exposure to radio

The literate experimentals listened to radio in large numbers and more often than the illiterate controls. Nearly 60 per cent of the experimentals listened as compared to 35 per cent of controls.

There are several conclusions which can be drawn from this evaluation study. This evaluation has presented evidence that the programme was efficacious in four major areas:

- (i) developing literacy skills of varying degrees of utility
- (ii) disseminating knowledge of improved agricultural practices
- (iii) speeding up the adoption rate of these practices, and
- (iv) effecting certain attitudinal changes.

This assumes special significance when we find that over 90 per cent of the Functional Literacy participants belonged to scheduled caste and other backward classes. The increase in level of knowledge of recommended agricultural practices has been influenced by the Functional Literacy Programme. The effect of the Functional Literacy Programme on the adoption of improved practices is a profound one. The effect on attitude changes, though difficult to measure with precision, may be the most profound in the long run. The degree to which these attitudinal changes result in an increased social productivity for the village and larger community will be the ultimate value test for the Functional Literacy Programme.

This study was basically an ex post facto study but used the control group for comparison purposes. It suffered from all the known limitations of such a design; nevertheless the Lucknow study served as a pilot in the true sense. The study resulted in testing methods and procedures which could be used in an expanded evaluation scheme. It provided valuable data under the available time period and provided necessary feedback to planners and operational staff besides giving first-hand experience in evaluation.

Socio-Economic Impact Study

The UNDP, as usual with internationally assisted projects, were keen to have a quick assessment of the impact of the integrated project of Farmers' Training and Functional Literacy and another study was launched. This was the fourth effort at evaluation. This study¹, completed in 1972, had again an ex post facto character and used experimental and control groups. But this time the design was different. Three districts (Kolhapur, Agra and Bangalore) in the three regions of the country and also the three cropping zones, viz. wheat, Bajra and Maize, Jowar and Paddy cultivation were taken up for study. In terms of changes in agricultural yield, levels of income, standard of living and socio-economic situation, there were variations in respect of three districts but the overall assessment was that functional literacy had an impact on socio-economic development in rural areas.

The main purpose of the investigation was to collect evidence of the impact of the programme. The study chose to cover four indicators - (i) changes in agricultural yield, (ii) income, (iii) standard of living and (iv) literacy acquisition. In addition, it also attempted to measure the impact of the programme on the community.

With regard to the agricultural yield, experimental villages showed marked increase in the average yield per acre as compared with the situation reported before the treatment was started and to the conditions prevailing in the control groups. This could not apply to Kolhapur district in Maharashtra which suffered a heavy drought and correct estimation of increase in yield per acre was not therefore possible. The annual income of the participating farmers had increased substantially. The data indicated that in three districts participants covered by the programme possessed a larger number of both household articles and agricultural implements than those in the control groups. The farmers under functional literacy treatment had more favourable attitudes towards modernisation in general, and socio-economic improvement of their respective communities in particular. The performance of the participants in reading, writing and arithmetic skills was fairly good.

Operational Aspects Survey

Towards the end of 1972, an evaluation² of the operational aspects of the Project was carried out.

1. Socio-economic impact of Functional Literacy Programme: Report of a Quick Assessment Study in three districts in India, Directorate of Adult Education, New Delhi, 1973.
2. Farmers' Training and Functional Literacy Project: Evaluation Report on Operational Aspects of the Project: Directorate of Adult Education, Ministry of Education and Social Welfare, New Delhi, 1972.

This was the fifth effort at evaluation. The method of collecting and analysing data was as under:

- (i) field trips to selected areas which resulted in visits to functional literacy classes, examination of the recorded data, discussions and interviews with officers-in-charge, staff members of concerned universities and voluntary organizations, teachers, local village leaders and participants;
- (ii) examination of progress reports received from various sources at the central level;
- (iii) analysis of various evaluation studies (assessments) concerning functional literacy prepared by various bodies at the Central, State and District level;
- (iv) analysis of summaries of direct observations made by the officials of the Ministry of Education;
- (v) Consultations with the officials of Ministries involved in the UNDP Farmers' Training and Functional Literacy Project and the international staff members.

In presenting the findings, a simplified method of systems analysis was applied with the result that all inter-related components of the project and all factors either facilitating or hampering the execution of the programme were analysed.

The report of the Operational Evaluation of the Functional Literacy Programme brought out both the weaknesses and strengths of the programme. It reviewed the various aspects of the project namely, objectives, target setting, staffing pattern, administration, supervision, financial procedures, training, teaching materials and methods, reporting system, co-ordination and integration, etc. The Report provides an excellent feedback on important issues like the organisational set-up, the targets, the staffing pattern, finance, administration, training, materials and methods and the teaching/learning situation. In regard to the main reasons for the projects actual difficulties, the Report says that these lie in the fact that there was not sufficient correspondence and relationship between the objectives set and the structural and organisational patterns of the project. The accent on high target setting and the race to catch up with the other two components, namely Farmers Training and Farm Broadcasting put a strain which could not be coped by the administrative machinery. It further observes that with the provision of adequate instrumental or facilitating inputs, the degree of the illiterate farmers becoming functionally literate with positive changes in their attitudes and behaviour would have been considerably enhanced. These instrumental inputs have been defined as "adequate and smooth budget allocations, competent teachers, abundant instructional material, full-time administration and supervision, efficient transportation, adequate facilities in the class". This lack of support acted as a deterrent in the optimal functioning of the Project.

The Report also referred to some "unprogrammed" facilitating factors which played a very considerable rôle in making up for the structural and organisational drawbacks. These facilitating factors have been enumerated as "exceptionally strong motivation among some categories of participants, who treated literacy as a means of social advancement, dedication of the bulk of teachers and the educational personnel at the local and central levels as well as of the staff of voluntary organisations - for whom eradication of illiteracy was not a routine administrative procedure but a sort of crusade to dispose of one of the most serious social evils." The Report concludes that

"these socio-psychological factors, not easy to measure, may in the long run prove decisive for the success of the whole programme".

The University of Udaipur carried out an appraisal¹ of the programme of Farmers Training and Functional Literacy, which was based on interviews with the farmers in selected villages and administration of literacy tests to participants and non-participants. The study determined the impact of the programme on selected indicators. The Tata Institute of Social Science, Bombay, similarly examined the impact of functional literacy particularly relating to knowledge, awareness and adoption of improved farming practices. It compared the performance of the illiterates with the functionally literate groups.

Jaipur Experimental Study

During the period 1971-73, an experimental study was conducted in Jaipur district of Rajasthan State to determine the contribution of the three components (farmers training - FT, functional literacy - FL and Farm Broadcasting - FB) independently and in combination among them to agricultural production. This was the sixth effort at evaluation.² The overall objective of the study was:

- (a) to evaluate, at the participant level, the impact of the integrated project, and
- (b) to find out the relative contribution of each component, independently as well as in its inter-relationship with others, on socio-economic development in general and agricultural development in particular.

The specific objective of this study was:

- (a) to study the socio-economic characteristics of the participants;
- (b) to determine the socio-economic impact of the treatment variable(s) - (i) functional literacy along (ii) in its combination with Farmers' Training and Farm Broadcasting, on the participants in relation to farming and agricultural production;
- (c) to determine the pedagogic gains and their use, and
- (d) to find out the effectiveness of the teaching/learning situation through attendance, drop-outs, teacher involvement etc.

The entire study followed an experimental design comparing the situation at two points in time (benchmark and terminal) and used experimental control and internal control groups for measuring the gains at the participant level from each component or groups of components (FT + FB + FL, FT + FB, FT + FL + FB, FL, FB, FT). The control group consisted of farmers not exposed to any of these; they were, however, matched with the experimental group farmers on a proportionate basis using group matching technique and taking the criteria of age, land size and illiteracy status at the beginning of the programme. For each of the above combinations four villages (two per block) were selected. A total sample of 480 farmers in the experimental group and 80 in the external

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1. Farmers Training and Functional Literacy: Evaluation Study of Functional Literacy Project in Bharatpur District, Krisan Vidyapeeth, Bharatpur, Directorate of Extension Education, University of Udaipur 1973
 2. Evaluation of Farmers Functional Literacy Programme: Report of an Experimental Study in Jaipur District (1971-73): Directorate of Adult Education, New Delhi 1974

control group besides 48 internal constituted the planned sample size. However, on account of actual enrolment in functional literacy classes, the sample at benchmark stage was 389 which was reduced to 347 by terminal survey period. In the groups concerning combination with FT and FB, the sample size became too small to permit valid comparisons. The report, therefore, covers only the functional literacy component in the absence of inadequate coverage of functional literacy participants by the other two components.

Since this has been one of the important evaluation studies, carried out on scientific lines, and has also been referred to in the Evaluation Report on World Experimental Literacy Programme brought out by Unesco, it would be helpful to literacy planners and managers to note some of the major findings. These are briefly summarised below under different headings:

1. Integrated approach

The integrated approach of the project is sadly neglected. Each programme component concerns itself with little realization that it has to strengthen the others and derive support of others.

2. Composition of the Group

A substantial proportion of the participants represented the relatively younger age-group of 15 to 35 years; they belonged to the middle and low caste groups showing that the programme benefits flowed to the relatively less privileged sections of rural population; majority of learners pursued farming as their primary or secondary occupation with less than five per cent constituting the landless category. Obviously, the socio-economic background of the learners revealed that the programme reached the target group in respect of age, social status, occupation and land holding.

3. Pedagogic Gains

It showed wide variation of the learners (who could take tests) in their reading, writing and arithmetic skills. However, a majority of the respondents were able to use their newly acquired literacy skills in their day to day work as reflected by their performance in filling out the Farm Plan details.

4. Teaching Situation

Teachers in the experimental sample by and large had no clear idea of the concept and purpose of the functional literacy programme; the criteria for enrolment were not consistently adopted; the size of the classes fluctuated too much, showing that teachers had not used the survey data to maximum advantage. While the average enrolment was 23.8, average attendance was 16.8. The average dropout rate at the selected centres worked out at 25 per cent of those enrolled. The main reasons for dropout were - 'exhaustion after days hard labour', 'nothing new to learn', 'no use of literacy skills in our work', 'illness and domestic work', 'location of class not convenient', etc. The teachers showed faith in the outcome of the programme provided the deficiencies were rectified and problems solved without loss of time. Motivation was still regarded by almost all as a serious problem. Participants in functional literacy group required to be rewarded by preferential treatment in the allocation of seeds, fertilisers, insecticides. The common problems faced by teachers pertained to 'non-supply' or 'inadequate, irregular or untimely supply' of the needed articles, equipment and materials at the functional literacy centres. Inordinate delays in payments of remuneration was a source of discontent among almost all the teachers, which according to them affected their morale and performance.

5. Professional guidance and supervision

While all the supervisors were educationally and professionally suited to discharge their responsibilities in the project, most of the supervisors who were part-time could not visit more than one class in a month. Nearby centres were visited more often as compared to those in the interior. Moreover the supervisory visits were more administratively-oriented. The problem of supervision was aggravated by the lack of transport facility.

6. Socio-economic impact

There was definite upward movement of scores in the experimental group from pre-programme stage to post-programme stage as far as awareness and understanding of agricultural practices connected with HYV of wheat crops was concerned. Such a change was not there in the control groups. Further the increase in the knowledge of agricultural practices was found to be positively co-related with their performance in functional literacy test. Somewhat similar trends were noticed for awareness and understanding of practices connected with HYV of bajra crop. Comparison of the data obtained from experimental group respondents with that of control group indicated that the attitude of the farmers had changed favourably towards various practices which were considered as indicators of modernisation and progressive outlook as against traditionalism. Participation in the functional literacy programme quickened the process of extension contact. About two-thirds of the respondents who had never gone to any extension personnel at the benchmark stage, established contacts by the time of terminal stage in the experimental group. The frequency of contacts with extension agents also showed the same trend. Participation in functional literacy promoted the utilisation of mass and group media better than in groups where such participation did not take place. Participation in functional literacy programme contributed not only to the development of positive attitudes to adult education but also to the conviction of the participants in its utility. This was not as well realised by the non-participant groups.

7. Participation in social organisations

The results showed that in this area there was very little influence of functional literacy. The learners in the functional literacy groups did not reveal any sizeable variations in the pattern of social participation as compared to their own level of participation before joining the programme.

8. Changes in adoption of new, improved agricultural practices

Only 66 per cent of the respondents in the experimental group showed an increase in the adoption of various practices as compared to 51 per cent in the control group. This was considered to be a marginal difference. The conclusion, however, was that participation in functional literacy, even though not a factor directly influencing the adoption of improved agriculture practices, did help in maintaining them at the level at which they were before joining the programme. It was felt that changes noted in attitude would finally bring about a change in adoption at a subsequent period of time. The readiness to accept that change and the very appreciation of the utility of the innovative practices, as reflected by their change in attitude, was considered as a substantial gain from the programme.

Unesco and UNDP Evaluation

The Unesco and UNDP mounted, in 1975, an evaluation of the Experimental World Literacy Programme and an Expert Group set up by them produced a Report¹. The procedures adopted by the Team to arrive at their conclusions were as follows:

- (a) The data were drawn primarily from the project files at the headquarters of UNDP and Unesco which included interim and final project reports by chief technical advisers and evaluation specialists, periodic reports of UNDP resident representatives, report of the UNDP/Unesco joint evaluation missions; financial statements on projects; preliminary drafts of the technical reports on various aspects of Experimental World Literacy Programme prepared by the Evaluation and Research Unit attached to Unesco's Literacy Division; reports and research documents from universities and governmental and non-governmental institutes and organisations, and studies carried out by individuals.
- (b) Comments, information and views on various aspects of the EWLP were collected through interviews with a variety of specialists at different levels who were involved with the programme.

Thus the Report of the Expert Group synthesises information from various sources and uses materials considered most significant in the context of all data available to the Group.

As far as India was concerned, the Team largely depended on the findings of several evaluation studies referred to earlier. The Report mentions that since the principal objective of the Project was to enable the illiterate farmers to obtain both literacy and strategic agricultural skills and information of immediate use to themselves and to High Yielding Varieties Programme, it was therefore designed to be immediately functional. In other words, the project was intended to help in achieving specific operational food production goals. The Indian project of Functional Literacy was, therefore, unique because literacy efforts by the Ministry of Education were organised in direct collaboration with the Ministry of Agriculture. While the objectives were very laudable, the Team observed that "actual implementation of this policy was retarded by a number of organisational and administrative problems, coupled with fluctuating but generally low-to-moderate government interest in the project's success. The consequences of such problems was a rather traditional approach to literacy instruction, running more or less parallel to certain work-oriented educational activities under the FAO part of the Project". The other point highlighted was the high rate of personnel "turnover" at all administrative levels and the lack of full-time personnel at all administrative levels and the inadequacy of training. It has been mentioned that the new orientations in the concept of adult literacy which implied far-reaching changes in curriculum, materials and methods, was achieved mainly through the organisation of workshops and seminars of literacy writers at national and regional levels. During 1972 as many as seven workshops were organised to study the reading requirements of farmers, methods of ascertaining such requirements, approaches to

1. The Experimental World Literacy Programme: A Critical Assessment, Unesco 1976.

Evaluation - procedures and findings

integrating literacy with aspects of agricultural development. Commending the efforts, the Report observes that "throughout the last years of the Project, materials were tested and improved so as to promote integration with the agricultural component of the programme".

The Government were not stingy in the allocation of resources for the project. The Report observes that "the government allocated far more money to the project than was actually spent". The main reasons for not utilising the funds to the full were largely due to various administrative bottlenecks because of the "federal" nature of the country where implementation was the concern of the State Governments who themselves depended on the district authorities at the field level for day to day administration of the project.

It has been admitted that the Project was vast in scope, far greater in terms of enrolment and geographical area than most other Experimental World Literacy Projects. The Plan of Operation of the Project did not outline the administrative structures required for the smooth functioning of the project. Towards the termination of the Project "administrative shortcomings were eventually redressed". It has further been admitted that the tremendous scope of the project made comprehensive evaluation of all "participating districts and villages a practical impossibility" and further "the rapid expansion of the project, and the demands for quick feedback, precluded the systematic use of longitudinal studies employing baseline surveys and interim and terminal evaluation".

The Team finally concluded that "in terms of the findings of the various evaluation studies, there was a general indication of positive results on nearly all fronts of the project-acquisition of literacy and numeracy skills, improvement in knowledge of new agricultural practice, attitudinal change, behavioural change (utilisation of newly-learned agricultural skills), and improvement in the standard of living, although differences were found among the various sub-projects and programmes. The results were sufficiently favourable for Unesco and UNDP to recommend continuation of the project".

Government of India Evaluation Committee

The Government of India has been subjecting the project to constant review and evaluation. The latest review, the seventh effort at evaluation, was carried out by an Evaluation Committee on Farmers Training and Functional Literacy set up by the Government of India in December 1976. The Committee, which met in February 1977, apart from specialists in agriculture, education and rural sociology, included senior officers of the Government of India. The Committee set up a number of sub-committees and sub-groups including Informal Consultative Groups. Five mobile teams for five regions in the country were set up. These mobile teams visited some of the States and a selected rural area in each region. They were given quick, intensive and short visits. Brief analysis of some of the earlier studies was also compiled. The Committee held a number of discussions on the reports of the mobile teams.

The Evaluation Committee, in its interim report¹, submitted in November 1977, had admitted

1. Towards Integrated Farmers' Training and Functional Literacy: The Interim Report of Evaluation Committee on Farmers Training and Functional Literacy Programme, Government of India, Ministry of Education and Social Welfare, New Delhi, November 1977

that the findings based on "these visits and discussions does not make a comprehensive evaluation. But it focusses attention on those items which in the opinion of the Committee call for immediate consideration and action because upon them will depend the future shape and pace of farmers' training and functional literacy". The mobile teams collected massive materials and data during their visits and its analysis was thoroughly discussed in the several meetings of the Evaluation Committee. In a way this was another kind of "operational evaluation" of the integrated programme and was unique in the sense that all the major Ministries, the Planning Commission, the Programme Evaluation Organisation of the Planning Commission, was involved in it. The visits to the selected areas were thorough and systematic and the reports of the mobile teams, compiled after the visits, contained valuable material.

For the present paper, it would be difficult to summarise the findings and recommendations of the Evaluation Committee. It may, however, be useful to refer to the Committee's major observations. In regard to achievements it has been observed that the operation of the integrated programme of Farmers Training and Functional Literacy has meant the recognition of the importance of bringing together physical components of development and human resources that training and literacy can release. "It has also been more than an educational programme, it has opened the possibility of providing a continuing socio-economic base to the primary producers in agriculture. Its impact has been felt during the last ten years on other activities also. The non-formal education programme of the Ministry of Education was really an adaptation and diversification of the same concept". The Committee has referred to inadequate coverage of the rural poor, the integrated concept of Farmers Training and Functional Literacy not transcending departmental outlook, lack of its percolation to the field level, want of planning from below, insufficient resources and incomplete utilisation, functional literacy being considered a "country cousin", unco-ordinated working of the various components of the Programme, lack of a continuing apparatus for follow-up at the field level with the result that the old members of the literacy classes are "left high and dry" without a mechanism whereby they can continue to avail themselves of various facilities, fragmentary and isolated arrangements for learning and instruction, uneven and unintegrated training facilities for personnel, non-suitability of educational material for local use - "it was tempting to apply the centrally produced prototype material more or less in the original form except for linguistic translations", cumbersome administrative and financial procedures, understaffing of supervisory personnel, etc.

It is not surprising that all the evaluation studies of the Functional Literacy Project have, more or less, come to the almost same conclusions; the feedback in terms of programme modification has not been as quick as the periodicity of evaluation studies.

SECTION III AN OVERVIEW

It is not the intention here to review the "pros and cons" of the concept of functional literacy, and the relevance of its methodologies and techniques to current literacy programmes. Any literacy programme, which is development-oriented, functions well and attains its outcomes in relation to objectives, is functional. In this section, however, an attempt has been made to draw some important conclusions from the implementation of the Functional Literacy Project in India, over a period of ten years - 1968-1978 - firstly on the basis of direct experience and secondly on the basis of the major findings of several evaluation studies, even though their samples and coverage were not large enough. These conclusions have direct relevance for India and many other countries which are implementing literacy programmes, either on a limited or on a massive scale. They are set out under appropriate headings.

Institutional basis

One important issue which emerged rather concretely in 1969, i.e. the third year of the implementation of the Project, was the urgent need to provide institutional and professional support staff at the national level, so that such kinds of educational development programmes are tackled at a professional expert level and are not treated as usual or normal schemes, involving only some financial inputs and expecting outputs in terms of literate adults. This is what normally happens when the concept is not clear and programmes are taken up without any advance pre-planning and adequate preparation, because a national or international agency is interested in promoting an idea. It was this realisation which led to the setting up of the Directorate of Adult Education at the national level, which is the academic and technical wing of the Ministry of Education in respect of all matters relating to Adult Education. Another step which should have been taken simultaneously was the setting up of a similar institutional infrastructure with professional expertise at the State levels which would have sustained the ever-expanding programme over the years at the grass-root level. For a country of a large size, both in terms of area and population, mere development of national level expert bodies and institutions and professional structures and competencies is not the real and only answer especially when a programme is as widespread as that of literacy and has to be operated locally. The common findings of the various evaluation studies have been that the actual implementation of the Project was retarded

by a number of organisational and administrative problems; the most evident shortcoming was the failure to establish horizontal and vertical co-ordination effectively; simple lack of strategic personnel in the districts, etc. This kind of multi-level expert institutional input is a must. Improvement of this situation is now being sought in the National Adult Education Programme.

Evaluation and Monitoring Units

Further, it was felt necessary to set up a full-fledged Evaluation and Monitoring Unit within the Directorate of Adult Education and the setting up of similar units in the States would have considerably helped in speedy evaluation and programme re-formulation. The tasks of these units would be several but the most important which emerged are listed below:

- (1) Setting up an Advisory Panel on Studies and Evaluation
- (2) Identification of personnel conversant with the work of studies and evaluation
- (3) Orientation and training of personnel in various techniques of evaluation and monitoring
- (4) Devising detailed schedules of surveys and studies relating to
 - (a) Problem areas and interests;
 - (b) Area and identification of locations;
 - (c) Literacy status;
 - (d) Availability of infrastructural and other resources.
- (5) Intensive training of survey staff at the district and block levels
- (6) Try-out of various schedules before finalisation and printing
- (7) Printing of schedules for final administration/collection of information
- (8) Canvassing of schedules in selected districts and blocks in a phased manner
- (9) Collation and tabulation of survey material
- (10) Preparation of reports and their circulation to various technical units and groups on Training and Orientation, Materials and Methods, Mass Media, Policy Planning and Co-ordination, Field Operations and Extension to enable them to prepare appropriate materials.
- (11) Devising performance for monitoring purposes
- (12) Collection of data periodically from block level and district level agencies
- (13) Devising, with the help of appropriate groups, preliminary benchmark tests of competencies (knowledge, skill and information) to be administered to the participants in the beginning
- (14) Administration of tests and their evaluation
- (15) Preparation of:
 - (a) Baseline Surveys;
 - (b) Interim evaluation;
 - (c) Terminal evaluation.
- (16) Feedback of the surveys and reports to various agencies

Fortunately such an Unit has now been set up in the Directorate of Adult Education.

An overview

Co-ordination bottlenecks

An area of concern, which was highlighted as a result of the implementation of the Project and which has been referred to in very clear terms in several evaluation studies, was the lack of co-ordination at various levels, between the different agencies involved in this programme. The Project was designed on the basic assumption that physical inputs alone were not adequate to bring about self-sufficiency in food production by introducing High Yielding Varieties of crops, but these have to be accompanied and matched by an equally intense input to human resources development. That is why the Functional Literacy component was added to the package. However, in actual practice, it continued to be unintegrated even up to the last day, due to a variety of reasons. Primarily it was very difficult to conceive of literacy as a positive factor; the agricultural and extension specialists always felt that supply of physical inputs was most important. They failed to recognise that the most significant take-off point in a nation's cultural, social and economic development is where it emerges from illiteracy to literacy and not from literacy to higher stages of education. Further, it was difficult for the Education Department to organise the rural poor and also the materials and methods used were, by and large, not conducive to integration. The impression unfortunately grew that literacy was a fringe activity and not much could be expected from it. There were some indications, even in the initial years, that the functional literacy programme would be treated as of marginal importance leading to unfortunate developments which tended to isolate this programme. This situation was made known very clearly by the then Secretary, Ministry of Education, in an address¹, to the All India Conference on Extension and Training in February 1970. Due to its importance, the relevant extract from the address is quoted in full:

"Adult education and adult literacy is a total programme. It cannot be run in isolation and that too by one department and within that department by one officer who is over-burdened with many jobs. We have to pool the resources - men, money and materials of all governmental departments dealing directly or indirectly with various programmes of adult education. It is high time that we free ourselves from problems of departmental jurisdiction and forge a united front to tackle this national problem. This type of close collaboration is not only essential at the national and state levels but it is even more important at the district, taluk and village levels. In this enterprise, I am sure that the Departments of Agriculture and the All India Radio will extend their full co-operation, and treat it not as a fringe activity but the hard core of the programme. Functional literacy is to be treated as equal among partners and not the last ..."

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The Evaluation Committee, referred to earlier, also repeated in 1977, after seven years of the implementation of the Project, that functional literacy was being considered as a "country cousin". For policy planners of literacy programmes, one of the foremost considerations is to see that literacy is always treated as an important factor in development. This will ease the task of administrators and evaluators.

1. Chakravarti S., Functional Literacy: Its Relevance to Agricultural Production, Ministry of Education and Youth Services, Government of India, 1970 Publication No. 883

One has also to reflect on the modalities of integration with other development projects and programmes. Integration does not mean subordination.

Evaluation procedures

The evidence is conclusive that the development of evaluation tools and techniques took considerable time. As stated earlier, the formulation of the Functional Literacy Project in all its possible details, was not exempt from growing pains. In 1969, the project was in the form of a scheme of two to three pages which had been passed on to the State Governments for implementation! In the initial process, which lasted for more than a year or so and involved detailed consultations, regional and national workshops, general concepts of the functional approach were spelled out in operational terms. To the extent that evaluation depended, and has to depend, on clearly defined programme objectives, it would have been of little use to lay foundations for evaluation of the Project. Initially there was confusion about the purpose and priority of the Project and this was largely responsible for further problems concerning the design, structure and timing of evaluation. Thus while implementation of the Project took place in 1967-68, the evaluation tools, techniques and procedures were developed by the end of 1971 and their application, in a systematic manner, started only from 1972 onwards. Initially, therefore, the bulk of evaluation procedures were, by and large, confined to ex post facto techniques. It was later on that benchmark surveys were carried out in order to assess the full impact of the project. The evaluation component was undoubtedly mentioned in the Plan of Operation agreed upon by the Government of India and Unesco/FAO/UNDP, but its operational implications, in terms of national and international inputs, were not worked out in precise terms both in time and space. Though the Plan of Operation provided for an Evaluation Expert for the Functional Literacy Project component, it took considerable time to recruit the expert and when available there was hardly any time to develop appropriate techniques and procedures relevant to Indian conditions. The first and preliminary Manual for Evaluation was prepared in 1972 by the Directorate of Adult Education but the final document¹ became available only in 1974. Thus, on the whole, the evaluation exercises were considerably delayed.

Another aspect was the size of the programme operation, no doubt a reflection of the vastness of the country; in terms of the number of participants covered it was equal to all the other projects in the Experimental World Literacy Programme. Thus, in contrast to most other countries, the Functional Literacy Project in India was not strictly an experimental pilot project located in one or two relatively small areas contiguous to each other and could not, therefore, be subject to an intensive evaluation treatment. In such a situation, the evaluation techniques, procedures and sampling had to be somewhat different.

1. Farmers Functional Literacy Programme: Guide for Evaluation, Directorate of Adult Education, Ministry of Education and Social Welfare, Government of India, New Delhi, September 1974.

An overview

Formative versus Summative Evaluation

Right from the beginning, there was an almost persistent clamour to obtain results from the Project. This impatience was partly due to the demands of the international funding agencies, who contributed a small financial input compared to the national massive investment. There were persistent demands for "impact" studies. While in regard to other components like Farmers Training and Farm Broadcasting, there was very little difficulty in measuring the impact because of the short gestation period, in the case of Functional Literacy, impact studies covering a period of a year or so could not give any positive evidence. This again stemmed from two different approaches to experimentation - the technico-scientific and activist-pragmatic approaches. The technico-scientific experimentation engendered summative or final evaluation with the accent on assessing the long-term impact of literacy which could only be known post-facto. This kind of approach was emphasised because the intention was to determine functional literacy's viability. Naturally the design was formulated in such a way that it would be possible to get data which would differentiate between results attributable to the three Rs and those caused by vocational training or other aspects of project activities. A fool-proof design to evaluate different outcomes in relation to different inputs meticulously and precisely could not be made to endure for long. Over-quantification also has its limits. Formative evaluation, which is on-going and assists decision-making as opposed to summative evaluation, was ignored. The formative evaluation kind of research would have generated more pertinent - including quantitative - data.

Formative evaluation studies naturally demand entirely different kinds of evaluation procedures and also the participation of a large number of highly professional research institutions. Such institutions would have been more effective in organising evaluation because of their proximity to the local situation. Care has, however, to be taken that research studies, analysing various aspects of the project do not become individual and sporadic efforts. They have to be organised according to a systematic programme of evaluation prepared jointly by the agencies responsible for implementation and the research institutions. Moreover, whenever such professional and academic bodies take up research studies and evaluation, it is necessary to have a dialogue between the field operators of the programme and researchers, so that a too theoretical approach is avoided. Evidence of this kind of formative evaluation is now available from the recent studies of the National Adult Education Programme of India conducted by the two premier research institutions of India¹.

Studies and Researches

Another area which emerges from the implementation of the Functional Literacy Project in India and which requires emphasis within the overall gamut of evaluation, is the study of various experiments carried out on different aspects of the literacy programme. These studies could have been specially organised when the programme had gathered momentum. This implies that the project authorities

1. National Adult Education Programme in Rajasthan: First Appraisal by Rao T. V., Bhatt A, Ramen Rao T. P., Public Systems Group, Indian Institute of Management, Ahmedabad 1979 and Adult Education Programme Gujarat: An Appraisal. Sarma Abul, Shah, Vimel P., Parikh, Bhanumati K., Sardar Patel, Institute of Economic and Social Research, Ahmedabad, 1979 (Monograph Series).

are encouraged to adopt alternative and innovative methods of teaching and learning, materials, media, recruitment of personnel, training, supervision, management, planning, mobilisation and motivation etc. Dissemination of such studies would have encouraged experimentation in order to obtain maximum results. This would have automatically led to development of operational and action research which is always helpful in perfecting approaches, methods and techniques of literacy programmes. In such a venture, well trained supervisors and enlightened instructors could even initiate small studies. Also some students who are conducting research for their Masters and Doctoral theses could also be encouraged to select areas which are relevant to their work.

Qualitative Measurement Tools

Evaluation of an educational reform is a precondition for improving efficiency. It would, however, be worthwhile to digress a little and question the very concept of the current designs of evaluation of literacy programmes even within the Indian context. Has it been possible to assess the achievements of the enlarged and qualitative goals of literacy? The existing designs and approaches place the accent on measurement of quantifiable socio-economic results, which are, by and large, highly mechanistic and technical. No serious attempt has been made to seek the views and perceptions of the illiterate and the neo-literate themselves. While invisible, more personal and qualitative effects of literacy on people have been ignored, the impact of literacy has been evaluated by investigating and measuring mostly behavioural changes related to socio-economic development and that also statistically. Mr. Kassam, in his thought-provoking book¹ has observed that - "although statistics are in some instances necessary and useful, in almost all cases of the investigation and analysis of a human and social phenomenon, the statistical approach alone serves to silence the human voice and strangle the human context and its end product is either a mere skeleton or a silhouette of social reality". In this connection it may be worthwhile to make more efforts to try out the concept of action-based participatory research where the professional researchers would be using their tools to stimulate local implementators of the programme and local beneficiaries. In this kind of research-cum-evaluation, the local field personnel and the beneficiaries would be contributing to the process of data collection, discussions and analysis. In a way they should feel and act as fellow-researchers. This will be the bottom-up approach which can take many forms. Some may be field and case-studies, particularly of areas, like a village or a hamlet, or even a family, which has undergone the literacy change. Case-studies of both success and failure can be developed. This would lead to studies on specific aspects of literacy's gains or losses. These case-studies would also highlight relevant information on how change is brought about.

Project Impact

Unlike other industrial or agricultural projects or programmes, the benefits of this project cannot be quantified precisely and perhaps no elaborate attempts should be made to do so. However, the major conclusion, based on the findings of various evaluation studies and researches, is that wherever

1. Kassam Yusuf O. Illiterate No More - the Voices of New Literates from Tanzania Dar-es-Salaam, Tanzania Publishing House, 1979

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and whenever the operations were systematic, inputs were available in required quantity and administration and professional support was forthcoming in adequate measure, the Project did make an impact not only in regard to literacy gains but also in the increase of agricultural knowledge, adoption of improved agricultural practices and positive attitudinal changes. There seemed to be a close relationship between attitudinal changes and increased social productivity. Literacy for the participants was the main channel of social promotion. Contrary to economic and industrial projects, in the area of literacy it was difficult to measure gains and losses in monetary terms. The evaluation studies have, however, amply proved the fact that the main value of acquiring literacy skills lies in opening up new avenues of communication, which would have otherwise remained closed. It also facilitated and improved the transmission of further knowledge and the acquisition of other skills. It brought about changes in human attitudes and, consequently, in human behaviour. It has also to be conceded that literacy is rather a long term developmental investment which may not be able to pay off immediately. Further, literacy is one of the important modernising factors and its impact cannot be assessed in isolation. That, however, does not indicate that no attempts should be made to apply selectively to literacy the evaluative criteria which are normally applied to other economic projects.

Pilot to Mass Scale

The Functional Literacy Project in India actually started its operations in 1967-68 in 3 districts. According to the Ministry of Education, Government of India Annual Report¹ for 1978-79, it was functioning in 146 out of 400 districts. The plans were to extend the project to a few more districts during the year 1979-80. A very important development which took place in 1975-76 was to extend the coverage of the project to non-high yielding variety crop districts and diversify its scope. The original plan visualised its operation in high yielding variety area districts only. The Annual Report² for 1976-77 of the Ministry of Education and Social Welfare states: "The scheme, having demonstrated the benefits of an integrated approach to rural development, was diversified in its scope to provide linkages with other developmental programmes. In 1975-76, it was extended to cover one district under the SFDA (Small Farmers Development Agency) and during 1976-77 it was extended to cover one district under the drought prone areas programme and five districts under the integrated tribal development projects". Thus in the course of ten years' implementation it was realised that it was possible to apply the functional approach beyond agricultural-based programmes as well.

1. Report 1978-79 Government of India, Ministry of Education and Social Welfare, Department of Education and Department of Culture, New Delhi, Government of India Press, Publication No. 1209, p. 157
2. Report 1976-77, Government of India, Ministry of Education and Social Welfare, Department of Education and Department of Culture, New Delhi, Government of India Press, Publication No. 1109

This project, rechristened the Rural Functional Literacy Project, has now been incorporated into the bigger programme called the National Adult Education Programme (NAEP) initiated by the Government of India in 1978. It covers by far the largest number of participants of any single programme within the NAEP. In mid-1977, there were 34,868 classes/courses of about 10 to 12 months' duration each, with a total of 888,660 learners¹. In fact the Ministry of Education Report for 1978-79 calls this project a "pace-setter". It has been the pathfinder and forerunner of the NAEP and provided the threshold for initiating this massive programme. It could justifiably be said that the Functional Literacy Project has survived after its pilot stage and did not collapse in "a stunted, listless state" as happened to some other projects referred to in the Report on "The Experimental World Literacy Programme". It emerged, in a vigorous form, because attempts at scientific grafting and transplantation were continuously made.

Finally, it would also be appropriate to mention that international collaboration through Unesco, FAO and UNDP with the national effort in initiating this project, in the earlier phase, was instrumental in developing a pilot stage project into a national scale movement. This is one of the instances where welcome intervention of international agencies was eventually responsible for developing a programme which has now been incorporated into the national development plan as a high priority item.

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LECTURE AND DISCUSSION SERIES No. 67: The author explains the main objectives and targets of the Functional Literacy Project of India which, on the one hand was one among the eleven projects of Unesco's Experimental World Literacy Programme and on the other an important component of the integrated programme of Farmers Training and Functional Literacy initiated in 1964-65 and jointly implemented by three Ministries of Agriculture, Information and Broadcasting, and Education in an effort to make 5 million farm families in 100 districts of High Yielding Varieties Programmes receptive to change, skills and literacy.

This presentation touches upon the initial teething troubles: the main thrust, however, is on discussing procedures adopted in several evaluation studies during a decade of implementation and giving the major conclusions of these studies under the main operational heads. In the section, an Overview, the author has presented a synthetic view, providing an insight into the kinds of problems which India faced in the implementation of this project, which have a direct bearing on the planning and administration of any future literacy programme in any part of the world. The Indian Project not only survived, it became a "pace-setter" and a "pathfinder", having demonstrated the benefits of an integrated approach and having made it possible to apply the functional approach beyond agricultural-based programmes as well. Thus the Project has now been incorporated into the National Adult Education Programme (NAEP) initiated by the Government of India in 1978 and covers by far the largest number of participants of any single programme within the NAEP.

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